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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,543	12/18/2001	Jerry L. Mizell	14413RRUS01U	8303

7590 11/07/2008

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EXAMINER	
PATEL, JAY P	
ART UNIT	**PAPER NUMBER**
2419	
MAIL DATE	**DELIVERY MODE**
11/07/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/025,543	MIZELL ET AL.	
	Examiner	Art Unit	
	JAY P. PATEL	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow et al. (US Patent 7072300 B1), in view of Chaskar (US Patent 7023820 B2).

3. In regards to claim 1, Chow shows in figure 3 a multiport switch inclusive of a port filter 316, an action generator 318 and an action tag generator 340. The port filter 316 may include logic for determining policy information associated with the received data frames (filtering a packet of data to determine an application associated therewith for processing the packet) (see column 7, lines 6-15). The port filter may apply policy rules to the received data frames to identify one or more policy equations relating to the data frames; furthermore, the action generator component 318 in conjunction with action tag generator 340, operates upon the result of the port filter 316 to generate an action tag for each of the received data frames (applying a service marking to the packet) (see column 7, lines 8-11 and column 7, lines 16-20). A policy equation may specify the type of processing to be given to a received data frame, such as whether the data frame should receive expedited, assured, or default processing (the service marking dependent on the application associated with the packet) (see column 7, lines 11-15). Chow discloses the above-mentioned filtering and application process for

an Ethernet network and fails to teach such an application being applied to a mobile telecommunication network.

However, Chaskar teaches applying differential services in a mobile telecommunications network (see figure 3, an intermediate node).

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to incorporate the filtering and application process taught by Chow into the differential services intermediate node taught by Chaskar. The motivation to do so would be to provide a technique that supports various QoS classes across a GPRS core network (see column 3, lines 31-33 in Chaskar).

In regards to claim 2, Chow shows in figure 3 a multiport switch inclusive of a port filter 316, an action generator 318 and an action tag generator 340. The port filter 316 may include logic for determining policy information associated with the received data frames (reading a port from the packet and determining the application form the read port) (see column 7, lines 6-15).

In regards to claim 3, figure 4 in Chow is a diagram of action generator component 318, port filter 316, and action tag generator 340. Decoder 411 in the action generator component 318, receives the policy information from port filter 316 as an identification of one or more applicable policy equations. The decoder 411 in response may select the highest priority policy equation as a match. Decoder 411 then outputs an address corresponding to the matched policy equation to action memory 412 (interrogating a table with the read port), which uses the address to output an action tag. Action memory 412 may be constructed as a table having 64 row entries, each

corresponding to one of the 64 bit policy equations (the table including an index of at least one port, each of the at least one port comprises a key of the table (one of the 64 bit policy equations)) (see column 7, lines 56-67). Furthermore, a policy equation may specify the type of processing to be given to a received data frame, such as whether the data frame should receive expedited, assured, or default processing (a record having a service marking respectively associated with each of the keys) (see column 7, lines 11-15).

Furthermore, as stated above, the decoder 411 in response the received policy information from the port filter 316 may select the highest priority policy equation as a match (determining the read port has a match with a first one of the keys of the table) (see column 7, lines 58-61).

Furthermore, decoder 411 may output the number of the selected policy equation (1-64) which directly address the appropriate row of the action memory 412 (returning the service marking included in the record associated with the first one of the keys) (see column 7, line 67 and column 8, lines 1-3).

In regards to claim 4, result tag interface 413, in response to receiving the DSCP field from state machine 410 and the table entry 500 from action memory 412, generates a complete action tag and forwards it to action tag generator 340 (see column 8, lines 33-44). Figure 6 is a diagram of an action tag 600 generated by result tag interface 413 and received by action tag generator 340. The DSCP/priority field 605-610 may include data that identifies a service that is to be provided or a priority that is to be given to the data frame (writing the service marking included in the record

associated with the first one of the keys into a field of the packet) (see column 8, lines 51-55).

In regards to claim 5, The DSCP/priority field 605-610 may include data that identifies a service that is to be provided or a priority that is to be given to the data frame (see column 8, lines 51-55).

In regards to claim 6, figure 4 in Chow is a diagram of action generator component 318, port filter 316, and action tag generator 340. Decoder 411 in the action generator component 318, receives the policy information from port filter 316 as an identification of one or more applicable policy equations. The decoder 411 in response may select the highest priority policy equation as a match. Decoder 411 then outputs an address corresponding to the matched policy equation to action memory 412 (interrogating a table with an identification of an application for processing the packet obtained from the packet), which uses the address to output an action tag. Action memory 412 may be constructed as a table having 64 row entries, each corresponding to one of the 64 bit policy equations (the table including an index including at least one key (one of the 64 bit policy equations)) (see column 7, lines 56-67). Furthermore, a policy equation may specify the type of processing to be given to a received data frame, such as whether the data frame should receive expedited, assured, or default processing (each key having a record associated therewith, each record having a service marking therein respectively associated with each of the keys) (see column 7, lines 11-15).

Furthermore, as stated above, the decoder 411 in response the received policy information from the port filter 316 may select the highest priority policy equation as a match (see column 7, lines 58-61).

Furthermore, decoder 411 may output the number of the selected policy equation (1-64) which directly address the appropriate row of the action memory 412 (the service marking returned upon a match between the identification and one of the keys) (see column 7, line 67 and column 8, lines 1-3).

Chow discloses the above-mentioned filtering and application process for an Ethernet network and fails to teach such an application being applied to a mobile telecommunication network.

However, Chaskar teaches applying differential services in a mobile telecommunications network (see figure 3, a SGSN , an intermediate node 304, a GGSN (any of which read on a node of a mobile telecommunications network operable to deliver at least one packet to a mobile device serviced by the mobile telecommunication network). Furthermore, since the SGSN, the intermediate node and the GGSN are all inter face with each other so Chaskar also reads on an interface to at least one other network node.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to incorporate the filtering and application process taught by Chow into the differential services intermediate node taught by Chaskar. The motivation to do so would be to provide a technique that supports various QoS classes across a GPRS core network (see column 3, lines 31-33 in Chaskar).

In regards to claim 7, Chow in combination with Chaskar teaches all the limitations of parent claim 6. Since Chow fails to show a mobile network, Chow also fails to show an access router that interfaces the mobile telecommunications network with an external network.

Chaskar however shows a GGSN in figure 3.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to incorporate the filtering and application process taught by Chow into the differential services intermediate node taught by Chaskar. The motivation to do so would be to provide a technique that supports various QoS classes across a GPRS core network (see column 3, lines 31-33 in Chaskar).

In regards to claim 8, result tag interface 413, in response to receiving the DSCP field from state machine 410 and the table entry 500 from action memory 412, generates a complete action tag and forwards it to action tag generator 340 (see column 8, lines 33-44). Figure 6 is a diagram of an action tag 600 generated by result tag interface 413 and received by action tag generator 340. The DSCP/priority field 605-610 may include data that identifies a service that is to be provided or a priority that is to be given to the data frame (writing the returned service marking into a field of the packet) (see column 8, lines 51-55).

In regards to claim 9, The DSCP/priority field 605-610 may include data that identifies a service that is to be provided or a priority that is to be given to the data frame (see column 8, lines 51-55).

In regards to claim 10, The DSCP/priority field 605-610 may include data that identifies a service that is to be provided or a priority that is to be given to the data frame (see column 8, lines 51-55).

In regards to claim 11, Chow in combination with Chaskar teaches all the limitations of parent claim 6. Since Chow fails to show a mobile network, Chow also fails to show the node being a general packet radio services support node.

Chaskar however shows a GGSN and an SGSN in figure 3.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to incorporate the filtering and application process taught by Chow into the differential services intermediate node taught by Chaskar. The motivation to do so would be to provide a technique that supports various QoS classes across a GPRS core network (see column 3, lines 31-33 in Chaskar).

In regards to claim 12, figure 4 in Chow is a diagram of action generator component 318, port filter 316, and action tag generator 340. Decoder 411 in the action generator component 318, receives the policy information from port filter 316 as an identification of one or more applicable policy equations. The decoder 411 in response may select the highest priority policy equation as a match. Decoder 411 then outputs an address corresponding to the matched policy equation to action memory 412 (interrogating a table with an identification of an application obtained from the packet), which uses the address to output an action tag. Action memory 412 may be constructed as a table having 64 row entries, each corresponding to one of the 64 bit policy equations (the table comprising one or more keys having a value indicative of an

application for processing packets and at least one record associated with each of the one or more keys having a value indicative of an application, each of the one or more records having a service marking stored therein (one of the 64 bit policy equations)) (see column 7, lines 56-67). Furthermore, a policy equation may specify the type of processing to be given to a received data frame, such as whether the data frame should receive expedited, assured, or default processing (each key having a record associated therewith, each record having a service marking therein respectively associated with each of the keys) (see column 7, lines 11-15).

In further regards to claim 12, result tag interface 413, in response to receiving the DSCP field from state machine 410 and the table entry 500 from action memory 412, generates a complete action tag and forwards it to action tag generator 340 (transmitting the packet) (see column 8, lines 33-44). Figure 6 is a diagram of an action tag 600 generated by result tag interface 413 and received by action tag generator 340. The DSCP/priority field 605-610 may include data that identifies a service that is to be provided or a priority that is to be given to the data frame (writing the returned service marking into a field of the packet) (see column 8, lines 51-55).

Chow discloses the above-mentioned filtering and application process for an Ethernet network and fails to teach such an application being applied to a mobile telecommunication network.

However, Chaskar teaches applying differential services in a mobile telecommunications network (see figure 3, an intermediate node, a GGSN and a SGSN

(any of which can be a first service node), a BSS (a base station sub system and a BTS since a BTS in included in a BSS)).

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to incorporate the filtering and application process taught by Chow into the differential services intermediate node taught by Chaskar. The motivation to do so would be to provide a technique that supports various QoS classes across a GPRS core network (see column 3, lines 31-33 in Chaskar).

In regards to claim 13, Chow shows in figure 3 a multiport switch inclusive of a port filter 316

In regards to claim 14, The DSCP/priority field 605-610 may include data that identifies a service that is to be provided or a priority that is to be given to the data frame (see column 8, lines 51-55).

In regards to claim 15, the multiport switch (a switch cannot operate without some sort of a processing unit (CPU)) in Chow is inclusive of an action generator 318 which further includes action memory 412 (a memory bank), a port filter 316 (a filter, a port number field of the packet read by the filter).

Furthermore figure 4 in Chow is a diagram of action generator component 318, port filter 316, and action tag generator 340. Decoder 411 in the action generator component 318, receives the policy information from port filter 316 as an identification of one or more applicable policy equations. The decoder 411 in response may select the highest priority policy equation as a match. Decoder 411 then outputs an address corresponding to the matched policy equation to action memory 412 which uses the

address to output an action tag. Action memory 412 may be constructed as a table having 64 row entries, each corresponding to one of the 64 bit policy equations (the value of the port number read used by the node to interrogate the table) (see column 7, lines 56-67). Furthermore, a policy equation may specify the type of processing to be given to a received data frame, such as whether the data frame should receive expedited, assured, or default processing (see column 7, lines 11-15).

In regards to claim 16, the multiport switch (a switch cannot operate without some sort of a processing unit) in Chow is inclusive of an action generator 318 which further includes action memory 412 (a memory modules), a port filter 316 (a filter operable to analyze the packet and determine the value indicative of the application).

Furthermore figure 4 in Chow is a diagram of action generator component 318, port filter 316, and action tag generator 340. Decoder 411 in the action generator component 318, receives the policy information from port filter 316 as an identification of one or more applicable policy equations. The decoder 411 in response may select the highest priority policy equation as a match. Decoder 411 then outputs an address corresponding to the matched policy equation to action memory 412 which uses the address to output an action tag. Action memory 412 may be constructed as a table having 64 row entries, each corresponding to one of the 64 bit policy equations (see column 7, lines 56-67). Furthermore, a policy equation may specify the type of processing to be given to a received data frame, such as whether the data frame should receive expedited, assured, or default processing (see column 7, lines 11-15).

Response to Arguments

4. Applicant's arguments filed 7/14/2008 have been fully considered but they are not persuasive.

The applicant argues that Chow's "policy information", is not equivalent to "an application…for processing the packet." However, the examiner respectfully disagrees. Chow states "The port filter 316 may include logic for determining policy information associated with the received data frames. For example, the port filter 316 may apply policy rules to the received data frames to identify one or more policy equations relating to the data frames. A policy equation may specify the type of processing to be given to a received data frame, such as whether the data frame should receive expedited, assured, or default processing or whether the data frame should be dropped or sent to a management device" (see column 7, lines 6-15). If the policy equation identified by the port filter's policy rules, specifies the type of processing to be given to the received frame, then clearly Chow reads on filtering an application associated therewith for processing the packet.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the applications identified in paragraph 27) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAY P. PATEL whose telephone number is (571)272-3086. The examiner can normally be reached on M-F 9:00 am - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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